

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: BAPTIST POND	Lake Area (ha):	40.02
Town: SPRINGFIELD	Maximum depth (m):	7.5
County: Sullivan	Mean depth (m):	2.4
River Basin: Connecticut	Volume (m ³):	972500
Latitude: 43°27'04" N	Relative depth:	1.0
Longitude: 72°04'52" W	Shore configuration:	1.29
Elevation (ft): 1266	Areal water load (m/yr):	8.98
Shore length (m): 2900	Flushing rate (yr ⁻¹):	3.70
Watershed area (ha): 673.4	P retention coeff.:	0.56
% watershed ponded: 0.6	Lake type:	natural

BIOLOGICAL:

14 January 1997

1 July 1996

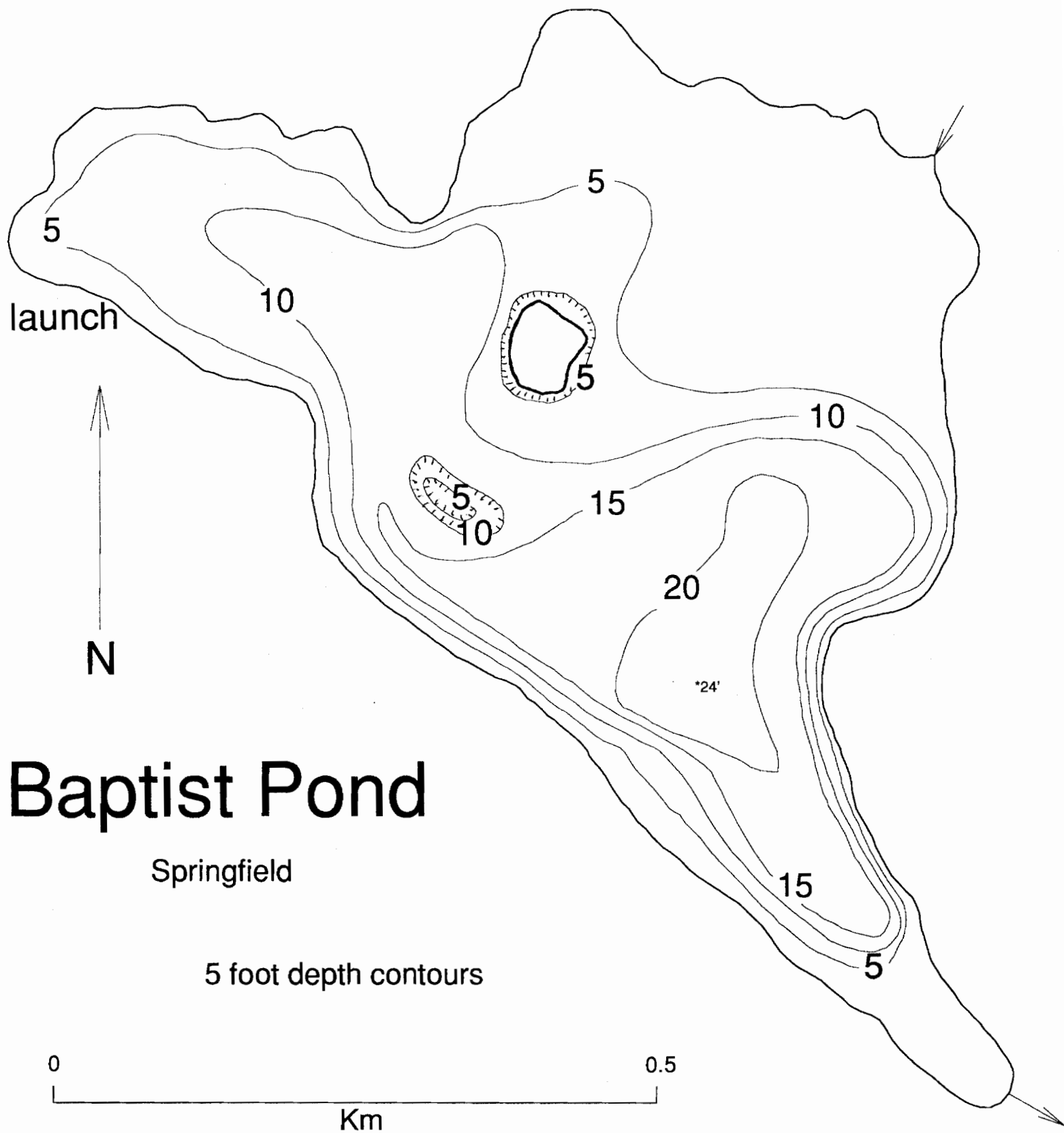
DOM. PHYTOPLANKTON (% TOTAL)	#1	ASTERIONELLA 60%	ASTERIONELLA 60%
	#2	(ALL ALGAE SPARSE)	TABELLARIA 30%
	#3		
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			6.40
DOM. ZOOPLANKTON (% TOTAL)	#1	NAUPLIUS LARVA 28%	ACTINOPHRYS 44%
	#2	BOSMINA 28%	POLYARTHRA 18%
	#3		KERATELLA 9%
ROTIFERS/LITER		2	188
MICROCRUSTACEA/LITER		15	60
ZOOPLANKTON ABUNDANCE (#/L)		18	574
VASCULAR PLANT ABUNDANCE			Scat/Common
SECCHI DISK TRANSPARENCY (m)			2.5
BOTTOM DISSOLVED OXYGEN (mg/L)		4.9	0.2
BACTERIA (E. coli, #/100 ml)	#1		< 10
	#2		
	#3		

SUMMER THERMAL STRATIFICATION:

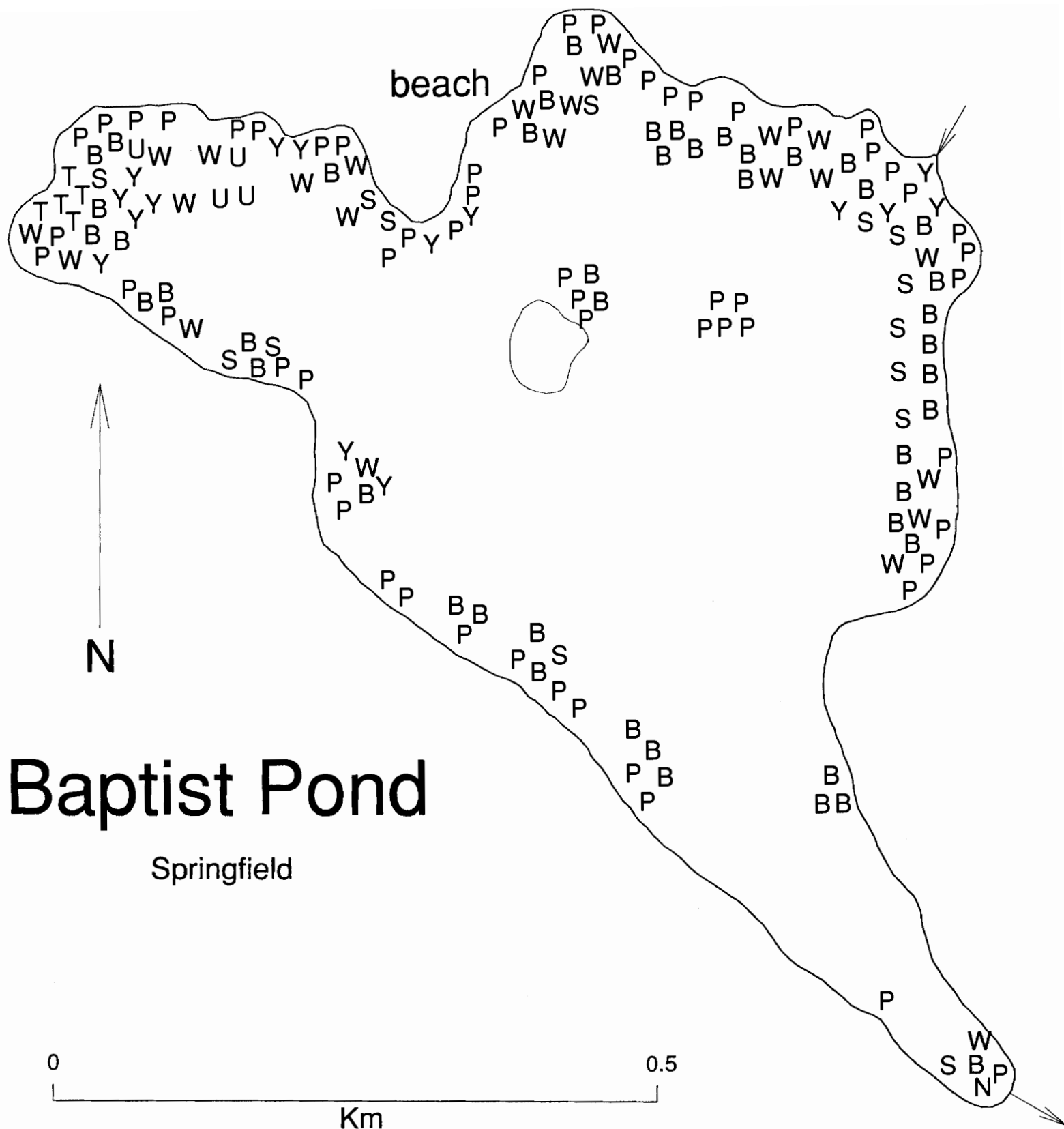
stratified

Depth of thermocline (m):	4.6
Hypolimnion volume (m ³):	15000
Anoxic volume (m ³):	4300

<u>CHEMICAL:</u>		Lake: BAPTIST POND Town: SPRINGFIELD			
		14 January 1997		1 July 1996	
DEPTH (m)		3.0	5.0	2.0	4.5 6.5
pH (units)		5.5	5.5	6.2	5.8 5.6
A.N.C. (Alkalinity)		5.1	6.0	4.2	3.9 4.7
NITRATE NITROGEN		< 0.05	< 0.05	< 0.05	< 0.05
TOTAL KJELDAHL NITROGEN		0.28	0.33		
TOTAL PHOSPHORUS		0.010	0.012	0.012	0.015 0.021
CONDUCTIVITY (μ mhos/cm)		76.6	88.1	85.1	85.2 89.8
APPARENT COLOR (cpu)		44	47	40	45 75
MAGNESIUM				0.54	
CALCIUM				3.6	
SODIUM				12.7	
POTASSIUM				0.66	
CHLORIDE		15	18	18	18
SULFATE		5	5	5	4
TN : TP		28	28		
CALCITE SATURATION INDEX				3.9	
All results in mg/L unless indicated otherwise					
<u>TROPHIC CLASSIFICATION: 1996</u>					
		D.O.	S.D.	PLANT	CHL TOTAL CLASS
		3	3	2	1 9 Meso.
<u>COMMENTS:</u>					
<ol style="list-style-type: none"> 1. Baptist Pond was previously surveyed and classified in 1980. There was no change in trophic class and little change in water quality after the 16 year period. 2. No public access to the pond. 3. The pond is located adjacent to interstate 89 which probably accounts for the slightly elevated sodium, chloride and conductivity values (salted highway). 4. Zooplankton were abundant but were dominated by actinopod protozoans, rather than the usual rotifers, or copepods. 					



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